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Recreation Programs for Special Populations



A MANUAL FOR
PUBLIC PARKS AND RECREATION
DEPARTMENTS

North Carolina Department of
Natural Resources and Community Development
Division of Parks and Recreation
Consulting Services Section
February 1982

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RECREATION PROGRAMS FOR SPECIAL POPULATIONS--
A MANUAL FOR PUBLIC PARKS AND RECREATION DEPARTMENTS

Prepared For:

North Carolina Department of
Natural Resources and Community Development
Division of Parks and Recreation
Consulting Services Section

Prepared By:

Drusilla E. Welborn
Graduate Assistant
Curriculum in Recreation Administration
The University of North Carolina
Chapel Hill, North Carolina

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INTRODUCTION

This manual is designed to aid parks and recreation administrators and their staff in providing or improving programs for the special populations in their community. If one is truly dedicated to the principle that recreators should work with and for all people, he/she will soon discover that handicapped persons can be served without a great amount of difficulty. This goal is attainable and is, in fact, integral to the profession's philosophy.

A disability does not disable the total person. However, disabilities are often compounded by unnecessary man-made environmental handicaps (physical and attitudinal). Handicapped persons should be treated in the same manner that every human being deserves, i.e., with respect, dignity, and the acknowledgment of individual differences, interests, and skills. The basic needs of all, including the disabled, are the same. Just as all fourteen year old boys are not identical, neither are the people in any special populations category. The individuals within any disabled group are much more varied than homogeneous; by treating persons as stereotypes, they are often dehumanized.

Recreational and leisure activities are especially important to special populations because many of them, especially adults, do not work or attend school. Leisure occupies much of their day and is not supplemental to other endeavors. As will be seen, it is not necessary that recreators know all about a disability to work effectively with special populations in the community. Recreation skills can and should be relied on first; specific information and techniques can then be obtained from other professionals. Learning more about special populations (e.g., how people learn skills; the best service delivery methods) will ultimately aid in the profession's service to all people.

The definitions of terms that are often associated with special populations may be found in Appendix I.

Most disabled persons are found in the community and not in institutions. It is estimated that at least one out of every ten Americans has limited mobility due to a temporary or permanent physical disability. Many buildings are off-limits to: 5,000,000 with diagnosed heart conditions; 250,000 in wheelchairs; 200,000 with heavy leg braces; 139,000 with artificial limbs; 260,000 with blindness; millions over sixty-five years old; those with temporary conditions of fracture, pregnancy, and convalescence from sickness or operations; and those with characteristics of childhood, dwarfism, and obesity.

The ultimate recreation goal of the handicapped is to have self-sustained participation in their leisure pursuits; the goal of community recreation services for the handicapped is to aid this process. The objectives of community recreation for special populations are:

1. Achievement of enjoyment, satisfaction, or fulfillment by the participant at the highest level possible.
2. Achievement of equality of opportunity in leisure, the arts, recreation, parks and culture by the handicapped participant.
3. Achievement of mainstreaming and a normal lifestyle (normalization) by the handicapped participant based on individual needs, interest, and desires.

Attainment of these objectives would result in many benefits for the handicapped including leisure fulfillment, fun and enjoyment, social skill acquisition, normalization, self-expression, activity skill acquisition, equality of opportunity, independent living, cultural enrichment, physical fitness, physical rehabilitation, and career education. It should be obvious that these objectives are similar, if not identical, to those that relate to all individuals within a community.

As will be seen, both federal and state governments have recognized the needs of special populations and have taken steps, through the legislative process, to assure the rights of the handicapped.

FEDERAL LAWS

The following is a brief discussion of the federal laws dealing with the handicapped that affect public parks and recreation departments. Contact your local congressman or U. S. senator for a copy of the Federal Register having to do with any of the federal laws in which you are interested.

1. Architectural Barriers Act (PL 90-480), August 1968--
"Any building constructed in whole or in part with Federal funds must be accessible to and usable by the physically handicapped."
2. Rehabilitation Act (PL 93-102), Section 504, 1973--This law is essentially a bill of rights for the handicapped. The final regulations were not put into effect until April 28, 1977; they state, in part: "No otherwise qualified handicapped individual...shall, solely by reason of his handicap, be excluded from the participation in, be denied benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance." "Handicapped" refers to both physical and mental impairments.

On January 13, 1978, Secretary Califano of Health, Education, and Welfare, issued guidelines for all other federal agencies (e.g., the Department of Interior) to follow as they write Section 504 regulations governing their programs and activities. The guidelines are:

- a. Handicapped people must be given an equal opportunity to participate.
- b. Programs and activities in existing facilities must be made accessible to handicapped individuals as soon as possible and no later than 1981. Structural changes in existing facilities must be made if there is no other way the recipient of federal funds can make its program accessible.
- c. Newly constructed facilities must be barrier-free.
- d. Employers cannot refuse to hire otherwise qualified handicapped persons if these individuals can perform the job with reasonable accommodation by the employer.
- e. Recipients of federal funds must consult with handicapped people and their organizations when planning compliance with the law.

The regulations allow the recipients of federal funds and grants to choose any method that results in making its programs accessible to the handicapped. Possible methods include: alteration of existing facilities, construction of new facilities, redesign of equipment, relocation of an activity to an accessible location, providing aids to assist handicapped persons, and home visits.

3. PL 94-142, 1975--This law guarantees handicapped children the right to a free and appropriate public education that emphasizes special education and related services. Related services are "...transportation and such other supportive services (including speech pathology and audiology, psychological services, physical and occupational therapy, recreation, and medical and counseling services)..."

Recreation is defined as including the assessment of leisure function, therapeutic recreation, recreation programs in schools and communities, and leisure education. These recreation services are to be authorized if it is determined that they should be required to assist a child to better benefit from special education. (See N. C. Education Law and School Board Rules - Appendix D).

NORTH CAROLINA LAWS

The North Carolina laws dealing with the handicapped that affect public parks and recreation departments are as follows:

1. N. C. General Statute, Chapter 160A-Article 18-- Recreation Enabling Law states:

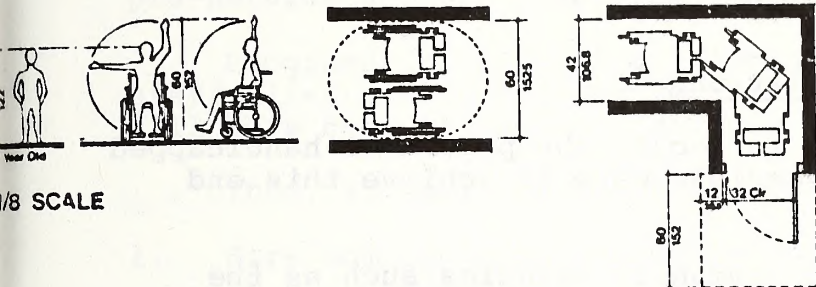
§160A-351. Declaration of State Policy--The lack of adequate recreational programs and facilities is a menace to the morals, happiness, and welfare of the people of this State. Making available recreational opportunities for citizens of all ages is a subject of general interest and concern, and a function requiring appropriate action by both State and local government. The General Assembly therefore declares that the public good and the general welfare of the citizens of this State require adequate recreation programs, that the creation, establishment, and operation of parks and recreation programs is a proper governmental function, and that it is the policy of North Carolina to forever encourage, foster, and provide these facilities and programs for all its citizens.

2. Chapter 168, "Handicapped Persons," of the North Carolina General Statutes was passed in 1973. It states, in part:

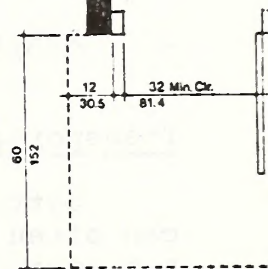
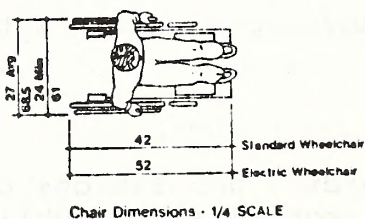
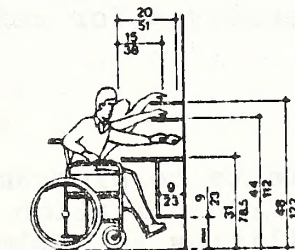
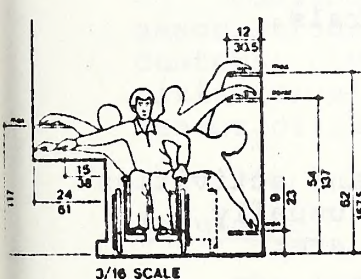
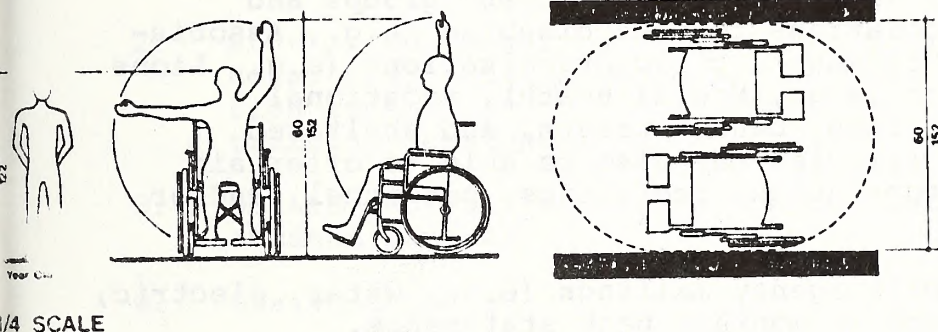
§168-1. Purpose and definition--The State shall encourage and enable handicapped persons to participate fully in the social and economic life of the State and to engage in remunerative employment. The definition of "handicapped persons" shall include those individuals with physical, mental, and visual disabilities.

§168-2. Right of access to and use of public places--Handicapped persons have the same right as the able-bodied to the full and free use of the streets, highways, sidewalks, walkways, public building, public facilities, and all other buildings and facilities, both publically and privately owned, which serve the public.

In 1975, a supplement was added to Chapter 168 stating that Chapter 168 could be criminally or civilly enforced. No specific criminal or civil remedies were recommended.



Space Requirements and Reach Dimensions for Person in a Wheelchair



From: N.C. Architect

PROBLEM AREAS AND SUGGESTED SOLUTIONS

This section deals with the factors often mentioned as probable problem areas by those starting activities for special populations. For each issue, several possible solutions are offered to enable parks and recreation departments to offer services to the handicapped with little or no more trouble than occurs when initiating any major program.

Identification of Special Populations

It is sometimes difficult to locate the potential handicapped clients in one's community. Possible ways to achieve this end include:

1. Get assistance from other community agencies such as the public schools (especially special education classes), the local department of social services, parent groups and organizations, associations for the disabled (e.g., Association for Retarded Citizens), civic organizations (e.g., Lions Club), local clinics (e.g., Mental Health), vocational rehabilitation services, census tracts, and sheltered workshops. (These agencies may also be able to offer aid in the way of transportation, facilities, personnel, and/or funds.)
2. Put leaflets in public agency mailings (e.g., water, electric, and/or gas bills) and in monthly bank statements.
3. Ask the handicapped clients themselves for referrals.

Transportation

Getting special populations clients to programs and activities can often be a problem since public transportation is usually not equipped to serve them. Possibilities to explore are:

1. Set up car pools among the families and friends of the handicapped clients.
2. Explore federal grant money.
3. Contact service clubs and social services agencies (e.g., Red Cross; Lions Club; Kiwanis); educate them to the need for barrier-free vehicles and encourage donations. (Also, make gas and maintenance provisions for accepting and utilizing donated vehicles.)
4. Identify community agencies that have appropriate vehicles and arrange contractual agreements with them.
5. Use agency vehicles.

Personnel

Recreation personnel are often hesitant and apprehensive about working with special population groups if they have never done so. However, a recreator should rely on his/her recreation skills first and remember that all persons, including the handicapped, are more alike than different. (One has to educate one's staff before the general public can be educated regarding the disabled.) Except for the more severely handicapped, recreation professionals should be able to work well with any group if some pre-service and/or in-service training is provided.

Programs for special populations often require a higher staff-client ratio than do regular ones. Volunteers can help fill this need if they are given a special orientation.

Thus, in addition to one's own staff, other options include:

1. Hire someone experienced in working with special populations (e.g., therapeutic recreator) on a full- or part-time basis for training and supervision.
2. Provide on-going, in-service training for the staff. (Check hospitals, medical centers, schools, colleges, and universities in the area for trained professionals to conduct the training sessions.)
3. Obtain general recreation and/or therapeutic recreation student interns.
4. Use volunteers.

Possible sources of volunteers are: local chapters of associations for the disabled; parent groups; volunteer action centers; civic organizations; private agencies; interested citizens; students (junior high school, high school, and college); senior citizens; and, interested adult handicapped persons.

Insurance

The issue of insurance costs with respect to serving the handicapped is not a legitimate one; most agencies have not found this item to be an impediment. A statement issued by the American Mutual Insurance Alliance, the professional association of insurance companies, indicates:

1. Workmen's Compensation--Rehabilitation and reemployment of job-injured workers is the chief goal of our workmen's compensation system. Workers who can gain employment after a job injury benefit by being self-supporting and productive. Employers benefit from rehabilitation through reduction in comprehensive insurance premiums. Also, elimination of barriers reduces the chances of work-connected accidents involving abled-bodied workers.

2. Public Liability--Surveys of buildings that have aids for the handicapped indicate that such buildings have fewer tripping and falling hazards, thus reducing public liability claims. Nonslip floors and ramps, for example, lessen chances for accidents. Under experience rating plans, policy-holders may gain rate reductions on public liability policies by removing their architectural barriers.
3. Fire--Standards recommended for aiding the handicapped also meet the highest fire prevention standards. Wide doors and ramps permit rapid evacuation. Improved placement and marking of fire alarms may speed notification of fire departments.
4. Health and Accident--Fewer accidents in public buildings would reduce losses and rates under health insurance policies. And, project leaders point out, provision of self-help facilities for the handicapped eliminates the need to carry disabled persons, a practice that frequently results in painful and costly back injuries.

Architectural Barriers

Many buildings are currently inaccessible to numerous disabled persons. When constructing a new facility, the cost of making it accessible is minimal compared to the expenses incurred when modifying it later.

Two excellent books are available for a minimal cost (\$2.00) from the N. C. Department of Insurance (P. O. Box 26387, Raleigh, NC 27611). An Illustrated Handbook of the Handicapped Section of the N. C. State Building Code is for use when erecting new facilities; Accessibility Modifications deals with making changes in existing buildings and includes a costs analysis. Many factors not usually thought of need to be considered in building for the disabled (e.g., an accessible entrance is of no use if the door is too heavy to be pushed open by someone in a wheelchair; light lettering against a dark background is easier to read than the reverse).

The President's Committee on Employment of the Handicapped suggests conducting a community building survey. The potential benefits are:

1. It focuses attention on architectural barriers.
2. It creates interest in barrier-free construction.
3. If a guidebook results from the study, it can be a valuable aid for handicapped citizens.
4. It is helpful in volunteer training.
5. It draws the attention of public officials to cases in non-compliance with existing laws, codes, and regulations.

A parks and recreation department that wishes to begin activities for special populations but which has facilities inaccessible to many disabled persons has three main options:

1. Modify existing facilities to make them accessible.
2. Explore the federal grants available to help in the costs of eliminating the architectural barriers.
3. Conduct programs for special populations in facilities that are accessible. Locales to explore are:
 - a. Schools
 - b. Churches
 - c. Private agencies
 - d. Commercial (e.g., bowling alleys, banks)
 - e. Libraries
 - f. Lodges and clubs

Remember also that many programs can be conducted outdoors.

Budgeting

Programs for special populations can be more expensive to operate due to such factors as the transportation costs and the higher staff/client ratio sometimes required.

The main source of funding should be an appropriation from governing body through regular budget process. Fees may be charged in accordance with agency's fiscal and program policies.

Other income could conceivably come from state, federal, and private funding sources including contributions and donations. (Consider encouraging the formation of a fund-raising committee.)

Attitudinal Barriers/Public Relations

Public awareness and support is needed for a parks and recreation department's special populations program. A department can positively influence the attitudes of the public toward the disabled through an information and public relations campaign. People tend to react negatively to the unknown and unfamiliar. Once they are educated about and become familiar with handicapped persons, the commonality prevails and the disability fades in importance.

To help promote special populations programs and public education regarding the handicapped, the following should be done:

1. Form an advisory council comprised of professionals, parents, disabled persons, and other interested citizens. Prior approval from regular advisory body is a vital step to avoid alienation.

2. Keep both the public and clients informed of services.
3. Make use of brochures, slide shows, exhibits, etc.
4. Post schedules of events in prominent places.
5. Report program accomplishments to the public.
6. Develop a good relationship with local newspapers.
7. Work with other community agencies.
8. Plan some events of an unusual nature that can be promoted.
9. Make public service announcements on local radio and television stations.
10. Design a special effort program to enable the disabled person to come in direct contact with the public (television, small parties, forums, events).

The N. C. Department of Insurance has a slide show available for use in this effort entitled "Are You Aware?".

PROGRAMMING

In programming for special populations, several points must be kept in mind. Not every disabled person is in need of specialized recreation services; many disabled persons will be able to successfully participate in on-going activities and programs. Thus, it is imperative that the programming is not based on diagnostic categories; perceive individual differences and abilities. The disabled person will often be able to tell a recreator what he/she can and cannot do.

In developing healthy, realistic attitudes toward the disabled, one needs to:

1. Recognize that the initial feelings of discomfort experienced when first interacting with disabled persons (which is a perfectly normal reaction) will evaporate quickly.
2. Not allow preconceived notions to dictate prematurely what can be expected in the way of performance from any individual.
3. Avoid the tendency to spread a disability to the total person based on the knowledge of one obvious disabling condition.

Treat the handicapped essentially the same as the able-bodied (e.g., emphasize the positive; do not patronize). Programming

proves to be more successful when the disabled themselves are involved in the planning, selection, and implementation of activities.

Programming Guidelines

The initial step in programming for special populations (after identifying who they are and where they are) should be to assess the overall leisure and recreation needs as a target group. The next step should be the formal gathering and recording of background information on each individual (age, sex, cultural background, education, leisure interests). A formal leisure counseling program would greatly enhance this effort.

After needs and interests have been identified and analyzed, goals, objectives, policies and strategies for implementation should follow based on individual and group needs. Objectives should be measurable with a specific time frame (annual).

Programming Levels

Not all of a parks and recreation department's disabled clients will be able to enter the regularly offered activities; thus, programming must be done on three levels. In addition, some clients will be in some special programs and in some of the usual ones since different activities require varying prerequisite skills. Therefore, every client and each potential activity needs to be considered individually in terms of the client's verbal, social, and activity skills along with the physical requirements of the activity.

Integration is the ultimate goal in programming. The objectives, especially for the more severely handicapped, should include more than just skill acquisition. Recreation activities can provide such benefits as improved socialization skills, improved self-image, and increased independence. The disabled clients in special programs also need exposure to the non-disabled populations to aid in the integration process. Upward movement should be encouraged but not forced; if capable, every client should have the opportunity to engage in both special and integrated programs.

The three levels of programming are:

1. Sheltered (Segregated)--Through adaptation, the more severely handicapped are provided with leisure and recreation-oriented experiences. Goals include the development of activity and socialization skills, improved self-image, development of independence, and community awareness. The use of specialized personnel is recommended; clients may or may not progress upward.

2. Semi-Sheltered (Transitional)--The aim is to provide the participant with activity and socialization skills necessary for participation in integrated programs. Improved self-image, leisure education, and increasing development of independence are often by-products.
3. Integrated (Regular)--The disabled and non-disabled participate together.

Five special populations groups (physically disabled, blind and visually impaired, deaf and hearing impaired, mentally retarded, and aging) will be discussed next. Although every person should be evaluated individually, within the disability groups there are some common attributes shared by most of the members. Knowing these will aid in program planning and development.

Physically Disabled

Many of the physically handicapped can readily integrate into regular programs or moderately adapted ones (e.g., wheelchair basketball). Often, they only need to gain the skills usually developed in the normal growing-up processes that they do not have due to isolation and lack of opportunities. The physically disabled in this situation usually do well in progressing up the three levels of programming. They need a series of challenges that can be mastered gradually.

Additional goals for the physically handicapped include preventing further deterioration of existing abilities, strengthening skills capable of further growth, and providing alternative skills for those that are lacking.

Blind and Visually Impaired

The blind and visually impaired profit from a well-organized, predictable environment. For example, entrances should be centrally located and readily identifiable. Many blind persons cannot read braille; raised letters rather than braille signs should be considered. When possible, extraneous noise should be eliminated because the visually impaired rely heavily on their sense of sound.

Deaf and Hearing Impaired

Since the deaf and hearing impaired rely heavily on their sense of sight, a well-defined environment, with good lighting at night is desirable.

With a deaf person who uses speech-reading, observe the following rules:

1. Face the person to whom you are speaking.

2. A distance of 4-6 feet should be maintained.
3. Do not stand with a light behind your head.
4. Speak at a normal speed; do not exaggerate.
5. Do not cover your mouth or talk with something (e.g., gum) in your mouth.
6. Use good, appropriate facial expressions.
7. Tell the deaf person what is being discussed during a group conversation.

Mental Retardation

Mental retardation does not necessarily imply any physical retardation. Consider both factors when planning. Again, do not plan facilities or activities inappropriate for the chronological age level.

General program guidelines for working with the mentally retarded are given below. However, it is essential to evaluate each mentally retarded person on an individual basis since there is a wide range of abilities within this group. The guidelines are:

1. Repetition is important since the mentally retarded learn more slowly than do "normal" people.
2. Demonstrate as much as possible, speaking clearly and using vivid gestures. The mentally retarded often learn more easily by imitation than by verbal instructions.
3. Progression is important. The mentally retarded, like others, learn best when starting with simple tasks and progressing to more difficult ones. However, their progress is usually slower and involves more repetition.
4. The mentally retarded generally perform best in activities of a solitary nature or in those with a few other people; they strive for individual rather than team success. However, it is important to have some group activities in which teamwork and cooperation are stressed.
5. Simplify rules and regulations; introduce new ones gradually; do not give them all at once.
6. Self-satisfaction from accomplishing a task alone is important. Use help sparingly and allow suitable time for task completion.

7. The mentally retarded need encouragement, praise, and success; praise when he/she has done well according to his/her ability. (Note: Do not give false praise.)
8. Carefully plan a smooth transition from one activity to another to avoid confusion.
9. Use discipline when appropriate.

Aging

The aging often possess many skills developed through years of experience, learning, and living. But utilizing these talents where applicable in programming, a parks and recreation department, its clients, and the retired persons will all benefit.

The National Council on Aging has developed eight basic concepts regarding the aging. They are:

1. Aging is universal and is a normal development process.
2. Aging is variable; no two persons react physically, socially, or emotionally in the same way. The degree to which individuals maintain healthy functioning is heavily based on personal life patterns of activity and interpersonal involvement.
3. Aging and illness are not necessarily coincidental.
4. Older people represent three generations in that they range from the early 60's to past 100; it is necessary to identify the variable factors among these three stages.
5. Older people can and do learn.
6. Older people can and do change, and are capable of readjustment to new circumstances.
7. Older people wish to remain self-directing.
8. Older people are vital human beings.

Programming objectives in recreation for the aging should include:

1. Personal enjoyment and satisfaction.
2. Opportunities for self-expression, achievement, and mental stimulation.
3. The means to render a socially useful service and to be recognized as an individual.

4. Development of skills, talents, and abilities by encouraging creative, inventive, and expressive interests.
5. Explore cultural pursuits.
6. Increased social relationships.
7. Physical fitness.

CONCLUSION

This manual and the following appendices, if fully utilized, can be a useful tool in developing and expanding recreation services to special populations on the community level. By serving the handicapped, everyone involved--the staff, abled-bodies, and disabled--will all benefit through the growth, learning, understanding, and enjoyment that comes from human interaction. Special populations members have been ignored too long, causing a detriment to all. It is time to rectify this situation.

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APPENDIX A

APPENDICES

APPENDICES

APPENDIX A

DEFINITIONS

Adventitious Disability--Physically disabling conditions that are acquired after birth by traumatic or chronic events.

Aging--Those manifestations of the aging process that significantly reduce mobility, flexibility, coordination, and perceptiveness.

Amputees--Loss of limb, either congenitally or due to an accident. Many of these individuals use artificial limbs (prosthetics).

Architectural Barriers--Physical barriers that make it difficult or impossible for the physically disabled to move about freely with other people, such as: stairs, narrow doorways, soft pathways, high drinking fountains and sinks.

Arthritis--A joint condition characterized by inflammation, pain, swelling, and other changes varying with the type. Common in the aging process.

Brain Damage--A brain injury or neurological impairment. An injury to the brain due to such things as a physical blow, pressure, hormonal malfunction, chemical poisoning, or oxygen deficiency.

Cardiac Arrest--Heart attack.

Cerebral Palsy (CP)--A disability due to damage of centers of the brain before or during birth resulting in imperfect control of the muscles and marked especially by muscular incoordination, spastic paralysis, and speech disturbances. It is estimated that more than one-half of the cerebral palsied are mentally handicapped. The afflicted is left with deficits in motor control, coordination, balance, speech, hearing and/or perception.

Congenital Disability--Usually relates to prenatal malformations, defects, or injuries existing at or before birth.

Chronic Disability--Usually refers to those resulting from diseases or conditions that are slow-moving and progressive or in an arrested state, i.e., where the progression or worsening has temporarily or permanently ceased.

Developmental Disabilities--Disabilities that become evident in childhood, are expected to continue indefinitely, constitute a substantial handicap to the affected individual, and are attributable to mental retardation, cerebral palsy, epilepsy, or other neurological conditions requiring treatment.

Diabetes--Disease in which the body is unable to ingest starches and sugars due to an inadequate supply of naturally produced insulin.

Disability--Relates to the specific loss of a physical function to the individual; may apply to mental impairment.

Disabling Conditions--Include but not limited to: hearing impairment, illness and infirmity, low level physical fitness, specific motor deficiencies, physical underdevelopment, mental retardation, neurological impairments and brain damage, physical and orthopedic handicaps, specific health problems (cardiac disorders, multiple sclerosis, muscular dystrophy, obesity, malnutrition, diabetes, asthma), serious mental maladjustments, emotional disturbances and social maladjustments, visual handicaps, and culturally, socially, or economically deprived.

Epilepsy--A disorder characterized by periodic motor or sensory seizures or their equivalents, and sometimes accompanied by a loss of consciousness or by certain equivalent manifestations.

Functionally Blind--Individuals cannot read printed materials or distinguish figures on television.

Gerontology--Study of the aging process and of aging persons in society.

Handicap--Relates to a disadvantage in performing a given task as a result of the disability, social attitudes, environmental or self-imposed restrictions.

Hearing Impaired--Deaf and hard-of-hearing individuals are those whose hearing loss is so severe that they are unable to hear speech unless it is amplified.

Hemiplegia--Paralysis and loss of use of one side of the body, a condition sometimes resulting from a stroke, brain damage, or lesion of the spinal cord. Functional loss is not always total.

Impaired--Refers to individuals who have identifiable organic and/or functional conditions. The condition may be permanent as in amputees or temporary as in learning disabilities or emotional problems.

Learning Disabled--Shows a specific learning disorder in one or more areas of performance or learning that dramatically inhibits the achievement of a competency level commensurate with the level predicted by intelligence test data.

Legally Blind--A visual acuity of 20/200 or less or a visual field of 20%; the individual cannot see as well as twenty feet what normal individuals can see at two hundred feet.

Mainstreaming--The process of selecting methods of integrating people and programs that are as close to a typical way of doing things as possible; the placement of handicapped individuals into the least restrictive environment.

Mental Retardation--Significant sub-average general intellectual functioning that may be evident at birth or develop during childhood. Learning, adaptive behavior, social adjustment, and maturation are impaired.

Multiple Handicapped--Refers to a person who has more than one handicap.

Multiple Sclerosis (MS)--There is an insulating layer of fatty substance over the brain and spinal cord, serving much like insulation over an electric wire and insuring free passage of impulses; in the human, transmission of nervous impulses to the muscles. In MS, this insulating layer for some reason breaks down, sclerotic patches occur in the brain and spinal cord and this interferes with the proper transmission of nervous impulses. The resultant course of the disease is one of "ups" and "downs", but usually progressing slowly downhill. Because of the damage to the nervous system, coordination, strength, speech, eyesight--one or all may be compromised. This is a rather bizarre disease, occurring much more in the northern area of the United States, Canada, and the Scandinavian countries. It is thecrippler of young adults, usually striking the ages of 20-40.

Muscular Dystrophy (MD)--Genetic hereditary disease that results in a progressive wasting away of muscle.

Normalization--The process of providing a typical rhythm of life for the handicapped.

Non-Ambulatory Disabilities--Impairments that, regardless of cause or manifestation for all practical purposes, confines individuals to wheelchairs.

Paraplegia--Paralysis and a loss of use of both lower limbs and lower part of the body, often as a result of spinal cord or brain injury.

Physically Disabled--Relates to the physical degeneration or loss to an individual that may have been caused by congenital or adventitious factors.

Physical Limitations--The restrictions imposed upon an individual by a temporary or permanent physical disability. A temporary physical limitation is surgery; permanent physical disabilities include blindness and deafness. This term may also refer to the physical limitations of a building or facilities.

Quadriplegia--Indicates a general paralysis and a loss of use of all four limbs, usually as a result of brain damage or high spinal cord injury, i.e., in the cervical region of the vertebrae. Such loss of use, particularly in the upper extremities, is not always total and the individual may have some functional use of the arms and hands.

Semi-Ambulatory Disabilities--Impairments that cause individuals to walk with difficulty or insecurity. Individuals using braces or crutches, amputees, arthritics, spastics and those with pulmonary and cardiac ills may be semi-ambulatory.

Senility--Physical and mental infirmity of old age; often misused and overused.

Sheltered Workshop--A workshop for handicapped individuals. The type and tempo of the work and machinery are modified for the workers. Payment on a piecework basis provides an income in accordance with the efficiency of the individual.

Sight Disabilities (Visual Impairments)--Total blindness or impairments affecting sight to the extent that the individual functioning in public areas is insecure or exposed to danger.

Spastic--Indicates there is an abnormal resistance to movement--tight muscles.

Special Populations--Those who, because of a variety of circumstances, differ from the average in their physical, emotional, social and/or intellectual behavior.

Stroke (Cerebral Vascular Accident--CVA)--This refers to stoppage of circulation to part of the brain either by the blood vessel bursting or being narrowed enough to deprive the area of blood. This generally partially paralyzes one side of the body and also may affect speed, judgment, memory, etc. The majority of strokes occur in older people, but no age group is exempt.

Traumatic Disability--Caused by a fast-moving or critical incident such as an accident, assault, war, or similar episodes.

APPENDIX B

HANDICAPPED COMPLIANCE CHECKLIST

1. Walks--At least one accessible route or walkway shall connect accessible buildings, facilities, elements, and space that are on the same site including accessible parking spaces, loading zones, accessible public streets, and sidewalks.
 - 1.1 Accessible walks shall be at least 4 feet wide and shall have a gradient not greater than 1:20 (5%).
 - 1.2 Such accessible walks shall have a continuous common surface, not interrupted by steps or abrupt changes in level greater than $\frac{1}{2}$ inch.
 - 1.3 Wherever accessible walks cross other walks, driveways, or parking lots they shall blend to a common level.
 - 1.4 Accessible walks terminating at doors shall have a 5 feet by 5 feet level platform extending at least 1' 6" on the opening side of door. (See Appendix A)
 - 1.5 The surface texture along accessible walkways shall be stable, firm, and relatively nonslip under all weather conditions. Materials as loose stone, cobblestone with unfilled joints, and a finely graded clay covering on an unsurfaced area shall not be used.
 - 1.6 Accessible walk with a running slope greater than 5 percent is a ramp and shall comply with 4. "Ramp".
 - 1.7 Accessible walks including trails shall have 6' 8" minimum clear head room.
2. Parking and Passenger Loading Zones
 - 2.1 Location--Parking spaces for disabled persons and accessible passenger loading zones that serve a particular building or facility shall be located on the shortest possible accessible circulation route to an accessible entrance of building or facility including picnic shelters/ areas, swimming pools, athletic areas, and game courts. In separate parking lots that do not serve a particular building or facility, parking spaces for disabled persons shall be located on the shortest possible circulation route to an accessible pedestrian entrance. The distance from the accessible parking spaces to the principal entrance of the building or facility shall be no greater than 150 feet.
 - 2.2 The minimum number of accessible parking spaces shall be one (1) space plus one (1) space per 100 spaces.
 - 2.3 Accessible parking spaces shall be designated as reserved for the disabled by a sign showing the symbol of accessibility. Such signs shall not be obscured by a vehicle parked in the space. (See Appendix B)
 - 2.4 Accessible parking spaces shall be at least 12' 6" wide. (See Appendix B)

- 2.5 Passenger loading zones shall provide an access aisle at least 4 feet wide and 20 feet long adjacent and parallel to the vehicle pull-up space. If there are curbs between the access aisle and the vehicle pull-up space, then an accessible curb ramp is required.
- 2.6 The surfaces of accessible parking spaces shall comply with 1.5.
3. Curb Ramps
- 3.1 Location--Curb ramps shall be provided wherever an accessible route or walkway crosses a curb.
- 3.2 Slopes of curb ramps shall comply with 4.1.
- 3.3 The minimum width of curb ramp shall be 3 feet, exclusive of flared sides.
- 3.4 Surfaces of curb ramps shall comply with 1.5.
- 3.5 Sides of curb ramps. If a curb ramp is located where pedestrians must walk across the ramp, then it shall have flared sides; the maximum slope of the flare shall be 10 percent. Curb ramps with returned curbs may be used where pedestrians would not normally walk across the ramp.
- 3.6 A curb ramp shall have a tactile warning texture such as exposed aggregate concrete.
4. Ramps--Any part of an accessible route or walkway with a slope greater than 1:20 (5%) shall be considered a ramp and comply with all requirements therein.
- 4.1 The maximum slope of a ramp shall be 1:12 (8.33%). The maximum rise for any uninterrupted ramp run shall be 30 inches.
- Note: If practical, a slope of 1:16 (6.24%) is recommended for facilities serving the elderly, double amputees, and handicapped persons with weak arm muscles.
- 4.2 The minimum clear width of a ramp shall be 4 feet.
- 4.3 Ramps shall have level landings at the bottom and top of each run. The landing shall be at least as wide as the widest ramp leading to it; with a length of at least 5 feet clear. If the ramp changes direction at landings, the minimum in landing size shall be 5 feet by 5 feet. If a doorway is located at a landing, then the area in front of the doorway shall comply with 1.4.
- 4.4 Handrails--If ramp slope is greater than 1:20 (5%) up to and including 1:12 (8.33%) and there is no drop off, then one side shall have a handrail. Where ramp drops off on one or both sides, then both sides shall have handrails. No handrail is required on slopes 1:20 (5%) or less, where there is no drop off.

- _____ 4.5 The cross slope of ramp surfaces shall be no greater than 1:50 (2%).
- _____ 4.6 The ramp surfaces shall comply with 1.5.
- _____ 5. Entrances--At least one of principal entrances to a building or facility shall be part of an accessible route or walkway and shall comply with 1. Walks. Entrances shall be connected by an accessible route to accessible spaces or elements within the building or facility.
- _____ 5.1 Doorways shall have a minimum clear opening of 32 inches with the door open at a 90 degree angle, measured between the face of the door and the stop.
- _____ 5.2 Stairs--Staircases that are going to be used by semi-ambulant persons or elderly persons shall be designed so that they are usable with a minimum of energy expenditure.
- _____ 5.2.1 Treads and Risers--On any given flight of stairs, all steps shall have uniform riser heights and uniform tread widths. Stair treads shall be no less than 11 inches wide, measured from riser to riser.
- _____ 5.2.2 Nosings--The undersides of nosings shall not be abrupt. The radius of curvature at the leading edge of the tread shall be no greater than $\frac{1}{2}$ inch. Risers shall be sloped or the underside of the nosing shall have an angle not less than 60 degrees from the horizontal. Nosing shall project no more than $1\frac{1}{2}$ inch.
- _____ 5.2.3. Handrails--Stairways shall have handrails at both sides of stairs.
- _____ 6. Drinking Fountains and Water Coolers--If fountains or coolers are provided, at least one shall comply with requirements below and along an accessible route.
- _____ 6.1.1 Spout Height--Spouts shall be no higher than 3 feet, measured from the floor or ground surfaces to the spout outlet.
- _____ 6.1.2 Spout Location--The spouts of drinking fountains and water coolers shall be at the front of the unit and shall direct the water flow in a trajectory that is parallel or nearly parallel to the front of the unit. The spout shall provide a flow of water at least 4 inches high so as to allow the insertion of a cup or glass under the flow of water.
- _____ 6.1.3 Controls and Operating Mechanisms shall be operable with one hand and shall not require tight grasping, pinching, or twist of the wrist. The force required to activate controls shall be no greater than 5 lbf.
- _____ 6.1.4 Clearances
 - (1) Wall- and Post-mounted cantilevered units shall have a clear knee space between the bottom of the apron and the floor or ground at least 27 inches high, 30 inches wide, and 17-19 inches deep. Such units shall also have a minimum clear floor or ground space of 30 by 48 inches to allow a person in a wheelchair to approach the unit facing forward.
 - (2) Free standing or built-in units not having a clear space under them shall have a clear floor or ground space at least 30 by 48 inches that allows a person in a wheelchair to make a parallel approach to the unit.

7. Toilet Rooms--At least one stall shall be accessible along or at the end of an accessible route, walkway, hallway, corridor or pathway. The stall shall be at least 3 feet wide and 5 feet deep. If a door is used, it shall have a 32 inch wide clearance and swings out. Grab bars shall be mounted on each side, 33 inches high and 42" long, parallel to the floor, 1½" in outside diameter, with 1½ inches clearance between rail and wall and fastened securely at ends and center. (ANSI-A117.1 - 1980)
- 7.1 Water Closets--The height of water closets shall be 17 inches to 19 inches, measured to the top of the toilet seat. (ANSI-A117.1 - 1980)
- 7.2 Urinals--At least one urinal shall be wall-hung with an elongated rim at a maximum of 17 inches above the floor. A clear floor space 30 by 48 inches shall be provided in front of urinals to allow forward approach. (ANSI-A117.1 - 1980)
- 7.3 Lavatories--At least one lavatory shall be mounted with a clearance of at least 29 inches from the floor to the bottom of the front and a maximum rim height of 34 inches. (See Appendix D)
- 7.4 Exposed pipes and surfaces--Hot water and drain pipes under lavatories shall be insulated or otherwise protected. There shall be no sharp or abrasive surfaces under lavatories. (See Appendix D)
- 7.5 Mirrors--At least one mirror shall be mounted with the bottom edge no higher than 40 inches from the floor.
8. Public Telephones--If public telephones are provided, then they shall comply with following:
- (1) A clear floor or ground space at least 30 inches by 48 inches that allows either a forward or parallel approach by a person using a wheelchair. Bases, enclosures, and fixed seats shall not impede approaches.
 - (2) The highest operable part of the telephone shall be no higher than 48 inches. Diagonally mounted telephones (in a corner) shall be no higher than 54 inches.
 - (3) The cord length from the telephone to the handset shall be at least 29 inches long.
9. Signage. All signs that provides emergency information or general circulation directions or identifies rooms and spaces shall comply as follows:
- (1) Letters and numbers on signs shall have a width-to-height ratio between 3:5 and 1:1 and a stroke-width-to-height ratio between 1:5 and 1:10.
 - (2) Characters and symbols shall contrast with their background--either light characters on a dark background or dark characters on a light background.
 - (3) Letters and numbers on signs shall be raised or incised 1/32 inch minimum. Raised characters or symbols shall be at least 5/8 inch high, but no higher than 2 inches. Indented characters or symbols shall have a stroke width of at least 1/4 inch. Symbols or pictographs on signs shall be raised or indented 1/2 inch minimum.

- (4) The International Symbol of accessibility shall be used to identify accessible facilities.

10. Outdoor Facilities

- 10.1 Park Benches--Accessible benches, if any, shall have a back rest and arm supports to give added body support to individuals affected by muscle weakness or spasms.

- 10.1.2 Accessible benches shall be a maximum of 14 to 16 inches deep with the back 18 inches high and arm rests 8 inches from the seat. The seat surface shall be from 15 to 17 inches from the ground, include a space beside benches for wheelchairs and strollers, 30 inches.

- 10.2 Lighting--If the facilities are to be used during night hours, accessible loading zones and parking spaces shall be adequately lighted.

- 10.3 Picnic Tables--Accessible tables should be located on level sites adjacent to or connected to accessible walkway, or accessible route; and have the following features:

- (1) A clear space between the ground and bottom edge of the table of at least 30 inches.
- (2) A clear lateral space of 34 inches beneath the table.
- (3) At least one end of table shall have an extension, 18 to 25 inches.

- 10.4 Grills--At least one unit shall be 30 to 36 inches high.

- 10.5 Water Faucets--At least one faucet shall be 36 to 42 inches high.

- 10.6 Picnic Shelters--At least one accessible picnic shelter shall be part of or connected to accessible route or walkway.

10.7 Swimming Facilities

- 10.7.1 Pools--Accessibility to pools can be provided in the following manner.

- (1) At various locations, the pool coping can be raised above the pool deck 1'-7" and fitted with grab bars to aid disabled person to sit and then swing their legs over the side into the water. The water level should be high, from 3 to 4 inches from the top of the coping to aid in a safe return out of water.
- (2) The coping can be level with the pool's water height and deck, with just enough slope to allow for drainage of water splashed on the deck.
- (3) The installation of a ramp with handrails, and a set of stairs with handrails, both located at the shallow end of the pool.
 - (a) Width of ramp should be at least 36 inches.
 - (b) Handrails should be 30 to 36 inches high.
 - (c) Slope of ramp should be at least 1:12 (8.33%).
- (4) Hydraulic lift pads and movable floors are other alternatives.

10.7.2 Lakes/Beaches--Generally, lake/beach swimming is not recommended for disabled persons, because of the lack of control over water depth, temperature, supervision and sanitation control. However, if a designer wishes to make a lake accessible, the following items should be considered:

- (1) The slope of the beach into the water should be no more than 10 percent.
- (2) An access walk leading to and along the water's edge is necessary. (See 1. Walks - 4. Ramps)
- (3) A ramp with handrail along one side extending into the water to a depth of 36 inches should be provided.
- (4) The entire swimming area should be well marked with floating markers or signals.

11. Fishing Pier--This type of facility can serve as a meaningful therapeutic tool for disabled persons if the following standards are met. (See Appendix E)

- (1) Access walk to the pier from the shore must comply with 1. Walks.
- (2) Fishing platforms must be a minimum of 8 feet wide to provide adequate room for circulation and tackle storage.
- (3) Handrails must be provided around the entire pier. Handrails must be 36 inches high and have a 30 degree angle sloping top for arm and pole rest.
- (4) A shelf for bait and tackle must be provided at a height of no more than 30 inches from the floor of the pier. The shelf should extend two feet beyond the handrail.
- (5) A kick plate must be provided to prevent foot pedals of wheelchairs from going off the pier.
- (6) A smooth non-slip surface must be provided on the access walk and the pier. Boards used for the surface area must be laid no more than one half inch apart.

